Regionalizing Acute Care After Complex Oncologic Surgery

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Central
Urgent Care Center (UCC)
24-7
MD & APPs

Regional
Symptom Care Clinic (SCC)
5 – 7 days / week, some extended hours
APPs
Surgery-specific training

Share Care Program
Care Fragmentation

• Surgical context:

Receiving postoperative care (90 days) at a facility other than the original surgery facility

• Strong association with outcomes:
  – 25-33% increases in perioperative mortality
  – Worse 5-year overall survival
Research Question:

Is regionalized acute care after oncologic surgery

1. Being utilized appropriately?

2. Safe?

3. Patient-centric?
Establishing Regionalized Acute Care Across a Health Care System to Decentralize Postoperative Care After Oncologic Surgery

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Research / Quality Assessment

• Methods
  – All surgeries, Jan 2019 – June 2021
    • Pre- and post-COVID
  – Cohort accessing UCC or SCCs
  – Multilevel modeling
Research / Quality Assessment

n = 7,937

RVU: 450,000+

>32,000 Readmission Days

TABLE 1. Baseline Characteristics of Surgical Patients at the Time of Their Initial Surgery, Stratified by Whether They Presented to the Centralized UCC or One of the Regionalized SCCs for Their First Acute Care Visit Within 90 Days After Surgery

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>UCC</th>
<th>SCC</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No. or Median</td>
<td>% or IQR</td>
<td>No. or Median</td>
</tr>
<tr>
<td>Age at surgery</td>
<td>4,946</td>
<td>70.7%</td>
<td>2,046</td>
</tr>
<tr>
<td>Female sex</td>
<td>2,812</td>
<td>56.9%</td>
<td>1,247</td>
</tr>
<tr>
<td>ASA class</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I or II</td>
<td>1,180</td>
<td>22.9%</td>
<td>519</td>
</tr>
<tr>
<td>III</td>
<td>3,419</td>
<td>69.3%</td>
<td>1,428</td>
</tr>
<tr>
<td>IV or V</td>
<td>382</td>
<td>7.8%</td>
<td>93</td>
</tr>
<tr>
<td>Cumulative work RVUs for index surgery</td>
<td>43</td>
<td>18-85</td>
<td>36</td>
</tr>
<tr>
<td>Surgeries requiring overnight observation or inpatient admission</td>
<td>2,863</td>
<td>57.9%</td>
<td>887</td>
</tr>
<tr>
<td>Length of stay after index surgery for surgeries requiring at least overnight observation</td>
<td>5 days</td>
<td>2-7</td>
<td>4</td>
</tr>
</tbody>
</table>

Abbreviations: ASA, American Society of Anesthesiologists; RVUs, relative value units; SCCs, symptom care clinics; UCC, urgent care center.
Results

- Clinical
  - Disposition
    - UCC: Admission 53%
    - SCC: Home 72%
  - Return visits to SCC
    - 3%
  - 90-day mortality similar between groups
    - ~5%; p = 0.517

- Patient-centric measures
  - Travel distance
    - 11 miles vs 27 miles
  - Efficiency
    - UCC: 6 hrs
    - SCC: 2 hrs
  - Financial toxicity
    - Similar
    - Out-of-pocket not studied
Utilization

Pre-COVID: March 2019 – Feb 2020

COVID: March 2020 – June 2020

Post-COVID: July 2020 – June 2021
Conclusions

• Regionalized acute care after complex oncologic surgery is:
  – Safe
  – Accessible
  – Increasingly utilized

• Next steps
  – Financial implications / patient-reported outcomes
  – Support increased utilization (providers)